

# **Community Health Report Card**

## **New River Health District April 1998**

**Floyd County  
Giles County  
Montgomery County  
Pulaski County  
Radford City**



# COMMONWEALTH of VIRGINIA

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To Residents of the New River Valley:

Power, courage, empowerment, responsibility. It is with these words that I introduce the New River Health District's first *Community Health Report Card*, an evaluative document that focuses on the prevention of disease, promotion of good personal health practices, and protection of the environment. This Report Card is aimed at helping New River Valley residents improve their own health and the health of their communities through increased personal preventive health practices and through increased community health promotion, protection, and disease prevention programs of public, private, and nonprofit agencies.

The New River Health District's *Community Health Report Card* provides specific information and data on each of our locality's baseline and current collective health status and needs. It is intended to give the New River Valley a "benchmark" panel of vital health indicators that will serve to chart future progress and evaluate current activities. It outlines and measures the progress, or lack of progress, over time--both successes and failures--of the New River Health District and its localities toward achieving the Healthy People 2000 Objectives that were set forth for the

Far from an end in itself, this Report Card is a formidable advocacy tool--a way to record and report how our individual jurisdictions and our District are doing on each objective as compared to neighboring localities, Virginia, and the Nation as a whole. Hopefully, for both our individual jurisdictions and the District, this document and its information and data will serve as a resource and contribute to more effective program planning and implementation of relevant prevention activities and to a greater awareness of the population on the urgency of improved lifestyle practices.

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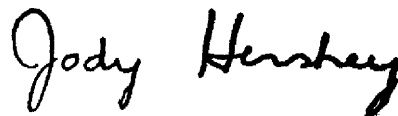
The New River Health District's *Community Health Report Card* raises new questions as well as answers existing ones. As in any realistic research, the interpretation, analysis, and hypothesis development will not explain all the subtleties and trends in the data. This is actually positive, in that I expect the Report Card to be a stimulus for community discussion, further research, and more sophisticated, focused strategies on how to intervene and brighten future prospects for the health of residents of the New River Valley.

It is my belief that significant progress in prevention activities can be achieved most effectively only when a community establishes clear and specific priorities based on its needs, collects baseline data for its starting point, undertakes a community-wide education and action program to accomplish the goals, and measures progress in future years. This Report Card is not a final grading document; the contributing authors envision a series of ongoing measuring efforts that will continue to track our communities' health and well-being.

It is with great hope that I encourage each of you to use this information to bring your dreams for your community to fruition. We cannot attain our objectives if we ignore the importance of family and community as determinants of health status. It is within the context of family that attitudes and behaviors are learned and maintained. Families need and deserve the support of their communities in achieving and maintaining standards of good health.

I am pleased to pass a bit of the torch to each of you. I hope that you will use your dynamic energy to support each other as you press toward your dreams. You have the power, responsibility, and ability to ensure that your families, neighborhoods, and communities are healthy, environmentally safe, and economically sound. Work and dream together, and you will succeed in creating the healthiest community possible.

Sincerely,

A handwritten signature in black ink that reads "Jody Hershey". The signature is written in a cursive, flowing style.

J Henry Hershey, M.D., M.P.H.  
Director

Our deepest fear is not that we are inadequate.  
Our deepest fear is that we are powerful beyond measure.  
It is our light, not our darkness that most frightens us.  
We ask ourselves: “Who am I, to be  
brilliant, gorgeous, talented, and fabulous?”  
Actually, who are you not to be?

from  
Nelson Mandella’s Presidential Inaugural Address

Dedicated to the entire staff  
of the New River Health District  
in honor of their professionalism, passion,  
diligence, and commitment that daily impact the health and well-being of  
the residents of the New River Valley.



<sup>TM</sup> *DIZZY* is the trademark of the New River Health District.

*DIZZY*, the dinosaur, is the New River Health District’s educational mascot, goodwill “public relations” ambassador, and the symbol of health promotion, disease and injury prevention, and environmental protection.

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Thanks, also, to other New River Health District staff who supported us through this project:

- ◆ Wanda Wylam, Public Relations Specialist, for her incredible skills in proofing and editing and her knowledge of proper writing forms. Also, we appreciate her efforts in keeping the Administrative Office together during our many busy hours of preparation of this document.
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Finally, thanks to all the staff from the Virginia Department of Health (VDH) in Richmond who contributed accurate and critical data and information for this publication, especially Leslie Branch, Director, Reportable Disease and Surveillance; Karen Day, DMD, MPH, Director, Division of Dental Health; Ronald Hyman, Director, and his staff at the Center for Health Statistics; Suzanne Jenkins, VMD, MPH, Acting Director of the Office of Epidemiology; Richard Nexsen, Heidi Villanueva, and Casey Riley, Director, Division of STD/AIDS; and Diane Woolard, MPH, PhD., Director, Division of Surveillance and Investigation.

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## Introduction

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The New River Health District is one of 35 health districts that comprise the Virginia Department of Health (VDH). The District consists of local health departments--in the counties of Floyd, Giles, Montgomery, and Pulaski and the city of Radford--that work cooperatively with local governments to assure the provision of public health services. The vision of the New River Health District is that residents of the New River Valley will be the healthiest people in the Nation. Our purpose is to equip residents and communities to achieve and maintain optimum personal and community health by emphasizing health promotion, disease prevention, and environmental protection. It is our mission to protect the health of those who reside in the New River Valley by constantly assessing community health status and by assuring that adequate public health programs are provided to protect our residents and their environment.

The Code of Virginia states that protection, improvement, and preservation of the public health and of the environment are essential to the general welfare of citizens of the Commonwealth. The New River Health District's purpose and mission clearly articulates the intent of the Code and brings attention to the individual's personal responsibility for good health.

Most preventable health problems in our society--including about half of all deaths--are caused by tobacco use, improper diet, lack of physical activity, alcohol misuse, microbial and toxic agents, firearm use, unsafe sexual behavior, motor vehicle crash deaths, and illicit use of drugs. The values, as well as the opportunities available, within the communities where we live affect the choices we make about health and safety. While universal access to personal health care and enforcement of laws and policies that protect our safety and the health of our environment are critical goals throughout our Nation, these do not, in and of themselves, fully address the fundamental causes of homicide, suicide, injury, disability, premature death, communicable and chronic diseases, and the retrogression of our natural resources. Increased attention to the elements of personal and community responsibility in making positive changes to preserve health and to protect the environment are the precursors of public health for the next century. The first step in the movement toward positive change in any community is to inform residents about health risks and health status issues that need improvement. Informed residents are in a better position to create and maintain positive change. Greater awareness of the urgency to improve lifestyle practices, reduce risk behaviors, and to protect the environment contributes to an improved health status of the community. Also, keeping our public, private, nonprofit, and voluntary health agencies abreast of issues that affect the health status of the community equips these agencies to more effectively establish programs that are in step with the community's needs.

Increased attention to opportunities to improve health through concerted action at the community level includes the development of methods to amass local health data, choose local priorities, and monitor health and health improvement activities. Community health report cards (sometimes called health assessments or health profiles) are being viewed as central tools in community health improvement efforts. They describe multiple dimensions of health problems, health status, health risk, quality of life, and their determinants in geographically defined populations.

This document is the first Community Health Report Card that has been developed in the New River Health District. The contributing writers of this report have gathered data on some very relevant and significant community indicators that provide an overall “health snapshot” of each locality. These indicators were selected to highlight and identify each locality’s current collective health status and needs. We are offering this data and information to the community in the hope that our partnerships in preventive health care and health promotion will be strengthened and our collaborative planning efforts improved. It is our hope that this report will serve to motivate, mobilize, and support our residents and leaders as they strive to improve the health status of their communities. Finally, it is our hope that the information offered to the community will be used as a planning and evaluation tool from which we will chart future progress and evaluate current activities aimed at improving the health status of all residents in the New River Valley.

The list of health indicators used in this publication are grouped into three major categories: Promotion, Prevention, and Protection. Under these categories are six health status and health risk goals:

- ◆ Improving Pregnancy Outcomes
- ◆ Promoting Oral Health
- ◆ Preventing Communicable Disease
- ◆ Decreasing Morbidity/Mortality from the Leading Causes of Death
- ◆ Reducing Injury Deaths
- ◆ Protecting Our Community from Environmental Hazards.

Each goal has multiple indicators that focus on health status and risk data of the New River Health District and its localities. These indicators provide specific baseline data and serve as evaluation, comparison, and measurement tools that chart our progress toward achieving these goals.

The Healthy People 2000 National Health Promotion and Disease Prevention Objectives have been used as benchmarks for most indicators of this report. In some instances, the Healthy People 2000 national objectives have been modified to correspond to State level objectives or to relate to local community need and targets. The process of developing the Healthy People 2000 Objectives evolved from the 1979 publication, Healthy People: The Surgeon General’s Report on Health Promotion and Disease Prevention, and the 1980 publication which set out an agenda for the ten years leading up to 1990, Promoting Health/Preventing Disease: Objectives for the Nation. Work began on the Healthy People 2000 Objectives in 1987 with the convening of a consortium that grew to include almost 300 national membership organizations and all state health departments. The U.S. Department of Health and Human Services (DHHS) issued a consensus report in September 1990, “Healthy People 2000,” that established certain national targets--in 22 priority areas--and compiled over 300 national health promotion and disease prevention objectives for the turn of the century. The effort that created these objectives should not be labeled a “federal” initiative, but rather a “national” initiative of both government and non-government agencies and private citizens who had the ability to focus on opportunities to prevent premature death and needless disease and disability.

It is important to note that appropriate objectives were not available for every indicator used. Also, there are many other indicators that are of importance such as the prevalence of tobacco in the New River Health District; however, indicators such as this have not been selected since there are no data specifically available for comparison. Under most of our goals, the health indicators and data for the New River Health District and its localities are compared to the indicators and data for the State and the Nation, as well as selected neighboring health districts--including Alleghany, Roanoke, and Mt. Rogers Health Districts. In addition, data for the most recent year, when available, have been compiled into a series of charts at the end of each indicator section that depicts how the New River Health District and its localities compare to our neighboring health districts, Virginia, the United States, and the Year 2000 Objective. Each of these charts also depict, for comparison purposes, the health districts in Virginia with the highest and lowest--best and worst--health outcome data for that particular indicator.

As compared to other health indicators, measuring the direct contribution of environmental indicators toward health outcomes is challenging. While other health status indicators can be associated with specific causative agents or certain risk factors, the measurement of environmental indicators involves agents that do not recognize specific geo-political boundaries such as the quality of our air, watersheds, underground aquifers, and recreational water quality.

Most major determinants in the health status of a community are associated with preventable factors that are strongly contingent on choices in personal lifestyle, personal responsibility, risk behaviors, and regard for the environment. These factors are addressed throughout this report. Each indicator in this publication contains a section entitled "What you can do" which provides the reader with information on prevention and risk reduction activities that can be implemented, either individually or as a broader community effort, to improve health outcomes.

As you review the data of this publication, particularly for the individual localities and health districts, it should be noted that numbers, rates, and percentages based on a single year can be deceptive. The same indicator might appear substantially different from year to year, based on different events and circumstances that occur yearly in each locality. Thus, indicators must be studied over an extended period of time to reliably reveal trends. Also, rates based on a small number of events or reported cases that relate to smaller population sizes (as can be the case in individual counties and cities) can be misleading since unique events may significantly impact such rates.

The limitations of the data in this report must be taken into account. Statistical issues--such as time period(s) to be covered, the definitions of the data to be collected, and the existence of conflicting data for the same objective from difference sources--are inherent in the collection of community health data. Throughout the process, an effort was made to use similar time periods, common definitions, and consistent reference sources. The data reference sources are documented throughout and thoroughly detailed in the "References" section at the end of the report. National, State, and/or local data could not always be obtained for all of the objectives and indicators used in this report. In addition, time period(s) for which data is available, vary to some degree due to reporting system(s).

Most national, state, and local health and vital statistics data are generally collected, and then analyzed, and officially published at least one to two years following the year of collection. Furthermore, reported data, especially of communicable diseases, are probably an underestimate of actual occurrences, due to under-reporting on a national, state, and local basis.

At the time of publication of this report, the most recent “official” data for the closest available time period(s) have been used. In some instances, more current “unofficial” data--available only in preliminary form--were used and have been noted as such. Throughout most of this publication, 1995 and/or 1996 data were used. Data for 1995 and 1996 provided a milestone that revealed how well the District was doing at the midway point of our endeavor to reach our Year 2000 Objectives for selected health indicators. Where data were available for a period of years, a trend graph depicts the extent to which the New River Health District and its localities, and in some instances the State as a whole, have progressed with respect to the indicated measure during the stipulated time frame.

To describe certain indicators, age-adjusted rates were used so that the effect of variations in the age distribution of the population of each locality is taken into account. Adjusted rates present one summary figure for a population. To calculate age-adjusted rates, statistical procedures are conducted to “remove the effect” of the difference in composition of various populations. Age-adjustment is the most commonly required type of adjustment for in-depth health data analysis because of the marked effect of age on mortality and morbidity. For example, a community with a predominant population younger than 65 years of age may have a lower death rate from influenza and pneumonia because there are fewer persons among whom these infections cause the greatest mortality. To examine and remove this effect of age, an age-adjusted rate would be used.

The data and objectives in this document are, with few exceptions, generalizations of the total population. In a few instances, the data are summarized for racial groups, age, and gender. According to available information, and in reality, significant disparities in health status can exist based on race, ethnicity, and socioeconomic and demographic status. Likewise, determinants of health status may vary by age and gender. However, in most cases throughout this document, the same objectives and targets have been used for the entire population.

Advancing health promotion and disease prevention involves a number of public health activities which are at the heart of the role of a local public health department. The December 1994/January 1995 Prevention Report from the U.S. Public Health Service describes the following programs and activities as essential local public health department services.

**Surveillance.** Knowing on a current basis what public health problems the community faces. Collection and analysis of health data. Monitoring of behavioral and environmental risk factors in the community.

**Leadership.** Taking active steps to initiate, develop, mobilize, organize, and follow through on pertinent activities and programs. Development of community partnerships for action.

**Standard setting.** Scientific examination of goals and requirements for relevant action to achieve the goals. Development of short-range and long-range plans. Design of strategies and programs.

**Education.** Facilitating the community's understanding and motivation to change risk factors, lifestyle practices, and environmental influences that affect its health. Increasing awareness of the need to seek early treatment when disease occurs. Increasing individuals' emphases on the non-use of tobacco, alcohol, and other drugs; on nutrition; on immunization; on responsible sexual behavior; on healthy pregnancy and family planning practices; and on violent behavior.

**Preventive Services.** Partnering to make available to the community accessible preventive services, such as immunization; screening for breast, cervical, and colorectal cancer; hotlines to avert suicide; drug and alcohol abuse; and violence in the home.

**Investigation of health hazards and outbreaks.** Reporting of specified diseases, tracing of exposures, laboratory analyses, case management of certain communicable and chronic diseases, and the maintenance of case registries.

**Linking vulnerable populations to health care.** Conducting outreach and referral, especially to at-risk and underserved populations. Development of cooperative service arrangements.

**Legislative protection.** Regulation of air pollution, water quality, food and drug safety, workplace protection, and safe housing. Monitoring the use of tobacco, alcohol, drugs, and firearms. Enactment and enforcement of appropriate legislation and regulations.

**Evaluation.** Collection and monitoring of data for the tracking of progress. Planning of future actions and services.

**Cooperative research.** Participation by the local health department in local or national research efforts to develop new knowledge.

Many people are working to make the New River Health District a healthier place; but we need your assistance to disease and injury, and to protect the environment. This calls for increased accountability for our personal help us in our mission as we work to promote healthy lifestyles, to prevent chronic and communicable health and for the health of others that we might impact.

It is readily evident from the New River Health District's Community Health Report Card that, in those areas with unfavorable trends, current strategies must be evaluated and modified to identify the contributing factors that place certain segments of the population at risk of adverse health outcomes and behaviors. It is only through a collaborative effort between public and private agencies that these trends can be reversed. Effort must be increased to make these changes within the context of family and community as this is where the desired changes will endure as we enter the new millennium.

# Demographics

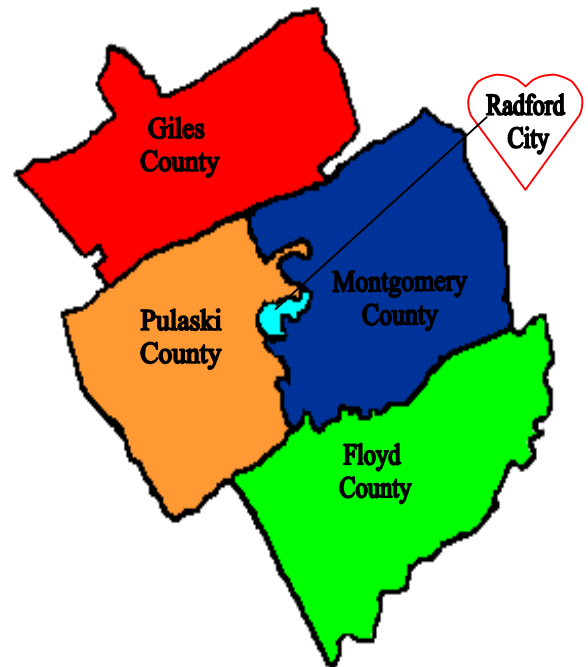
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## *History and Attributes*

The New River Valley is located in the southwestern part of Virginia. The valley is formed from the bisection of the New River, the nation's oldest and the world's second oldest river. It is bordered on the north by the Alleghany Mountains and on the south by the Blue Ridge Mountains. This region takes its name from the New River and includes the counties of Floyd, Giles, Montgomery, and Pulaski, and the city of Radford, covering a land area of 1,457.9 square miles or 3,776.2 kilometers.

This part of southwestern Virginia was first explored in 1671 when an expedition discovered the New River. Pioneers from Pennsylvania and eastern Virginia began settling the region in the early 1700s. These early settlers were predominantly of German, French, Scotch-Irish, and English descent.

The communities of the New River Valley provide a friendly, family-oriented, "small-town" atmosphere with all of the attractions of cosmopolitan areas. The New River Valley is a quiet place surrounded by natural beauty. There is a spirit of cooperation to get things done, to develop and maintain a strong economy, and to provide personal enrichment opportunities for all residents.



The region, with over 45 primary and secondary schools, two universities, and one community college, is rich in educational opportunities. The New River Valley's current education and training system is undergoing a transition in preparation for a productive twenty-first century workforce. Primary schools are connecting students to the Internet and beginning to integrate industry input into their curriculum. Secondary institutions provide education in both liberal arts and technical fields. The Southwest Virginia Governor's School for Science, Math, and Technology is located on the campus of Pulaski County High School and serves students from the county public school systems of Pulaski, Giles, Bland, Floyd, Carroll, Grayson, Bland, Wythe, and Smyth, and the city of Galax. New River Community College has an economic development center and an industrial training program; and the technical training that it offers is readily accessible to all New River Valley residents, providing students the skills necessary to compete in a global economy. The town of Blacksburg and the city of Radford are the homes of Virginia Tech and Radford University. Virginia Tech is world-renown for its engineering and architecture programs and has widely recognized graduate and undergraduate degree programs in these and other disciplines. The Virginia-Maryland Regional College of Veterinary Medicine is located on the campus of Virginia Tech. Radford University is known for its teaching, nursing, and business programs. Each of these universities and New River Community College provide exceptional opportunity for personal education and cultural growth. Concerts, plays, lectures, and musical programs are offered to the community throughout the year.

A full range of regional shopping and restaurant facilities at the New River Valley Mall complement numerous downtowns, each of which has its own atmosphere. Urban shopping and other amenities are available in nearby Roanoke.

Outstanding outdoor recreational opportunities in the New River Valley include the Cascades, the Jefferson National Forest, the Blue Ridge Parkway, the Doe Run Lodge, the Appalachian Trail, the New River Trail, Claytor Lake, two state parks, and the Mountain Lake Resort.

Access to medical services is critically important to everyone. The New River Valley is fortunate to have a health department in each of the five jurisdictions; hospitals in four jurisdictions: Giles, Montgomery, Pulaski, and Radford; three Free Clinics located in Floyd, Pulaski, and Montgomery; and over 155 physicians.

The physician-to-population ratio is one measure for determining if sufficient numbers of physicians are available to meet the primary care needs of the community. Presently, the goal for communities is to have at least one physician per 4,000 population. In the New River Valley, the physician-to-population ratio is 1:3988 in Floyd; 1:1637 in Giles; 1:3696 in Montgomery; 1:2654 in Pulaski; and 1:911 in Radford.

According to the *1994 New River Valley Health and Human Services Needs Assessment*--a broad spectrum community-based appraisal of needs, compiled by the diverse efforts of local governments, United Way organizations, and service providers--medical insurance was cited by 34% respondents representing 19,270 households as a major or moderate problem in the New River Health District (NRHD). Nearly as many New River Health District residents--31% or 17,619 households--reported that having enough money to pay for the doctor or to buy prescription medicine was a major or moderate problem. Another 21% of households reported lack of employment as a major or moderate problem. Other problems reported for 31% households in the New River Valley included stress, anxiety, and depression, as well as getting special transportation for a disabled, sick, or elderly person.

Obvious barriers to accessing medical care include lack of transportation, inability to get an appointment with a physician because s/he may not be taking new patients, untimely or inconvenient appointment and office hours, and lack of insurance. It is estimated that 17% of the Nation's population, 13% of Virginia's population, and 15% of the New River Valley's residents are uninsured. Alarming, 19% of the uninsured are children. Most of these children are from the working-poor families with parents who earn too much to qualify for Medicaid but not enough to purchase insurance.

Most uninsured people cannot afford to go to a physician on a regular basis. Even if they do seek medical attention, most cannot bear the cost of filling prescriptions and, subsequently, either do not get prescribed medication or take a smaller dosage than is prescribed. Many of the uninsured seek attention for routine and acute medical conditions in the most costly of all settings--hospital emergency rooms.

Consequently, access and prevention are intimately linked. When difficulty obtaining a physician is experienced, the ultimate result may lead to decreased emphasis on important preventive care such as early prenatal care, immunizations, dental care, and early lifestyle changes which may largely prevent the onset or reduce serious complications of certain diseases--atherosclerosis, diabetes, hypertension--and also result in an over-reliance on emergency room services.

## Population Trends and Characteristics

Since 1980, the New River Valley has experienced steady population growth. Total population increased from 141,343 in 1980 to 152,680 in 1990, a rate of 8% over the ten-year period. 1995 data from the Virginia Employment Commission revealed a small 2% increase between 1990 and 1995, crediting the New River Valley with a population of 156,223. It is interesting to note that both Giles and Pulaski counties decreased in population, while Floyd County, Montgomery County, and Radford City experienced a significant increase. The following table reflects the changes in population, land area, and population density for localities of the New River Health District and Virginia.

**Population, Land Area, and Population Density  
Virginia, New River Health District and Localities  
1980 – 1995**

<i>Locality</i>	<i>1980</i>	<i>Revised Census 1990</i>	<i>Percent Change 1980-1990</i>	<i>Projected 1995</i>	<i>Percent Change 1980-1995</i>	<i>Land Area Square Miles</i>	<i>Persons Per Square Mile</i>
Virginia	5,346,818	6,189,197	15.8	6,551,576	18.4	39,597.8	156.3
New River Valley	141,343	152,680	8.0	156,223	9.5	1,457.9	104.8
Floyd County	11,563	11,965	3.5	12,219	5.4	381.5	31.5
Town: Floyd	411	396	-3.6	412		0.5	792.0
Giles County	17,810	16,366	-8.1	16,240	-9.7	357.9	45.7
Towns:							
Glen Lyn	235	170	-27.7	192		0.6	283.0
Narrows	2,516	2,082	-17.2	2,185		1.3	1,601.5
Pearisburg	2,128	2,064	-3.0	2,054		1.6	1,290.0
Pembroke	1,302	1,064	-18.3	1,124		1.1	967.3
Rich Creek	746	670	-10.2	680		0.9	744.4
Montgomery County	63,516	73,913	16.4	76,831	17.3	388.2	190.4
Towns:							
Blacksburg	30,638	34,590	12.9	35,231		18.8	3,988.5
Christiansburg	10,345	15,004	45.0	17,532		13.5	1,111.4
Pulaski County	35,229	34,496	-2.1	34,345	-2.5	320.6	107.6
Towns:							
Dublin	2,368	2,012	-15.0	2,110		0.9	2,235.6
Pulaski	10,106	9,985	-1.2	9,884		7.8	1,280.1
City of Radford	13,225	15,940	20.5	16,588	20.3	9.8	1,626.5

Sources: New River Valley Planning District Commission, August 1997.  
Virginia Employment Commission, *Virginia Population Projections 2010*, 1993.

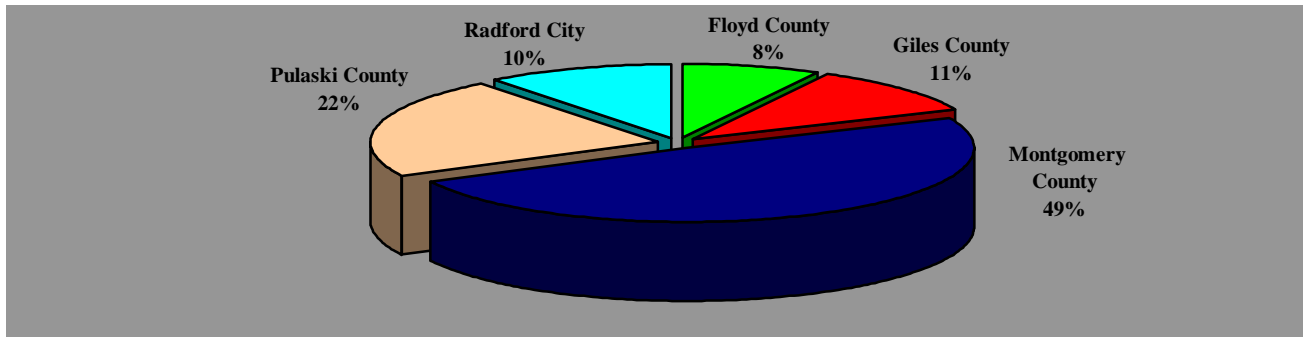
Additionally, the 1990 census for the New River Valley reveals that:

- 32 years is the median age of the population, compared to Virginia's 32.6 years.
- 49.5% of the population is urban, compared to Virginia's 69.4%.
- 50.5% of the population is rural, compared to Virginia's 30.6%.

Nearly half of the New River Valley's population resides in Montgomery County, which has consistently exhibited the strongest population growth. Floyd County grew faster at 5.3% than did Montgomery County at 2.8% in 1994. The following graph provides population distribution for localities of the New River Health District.



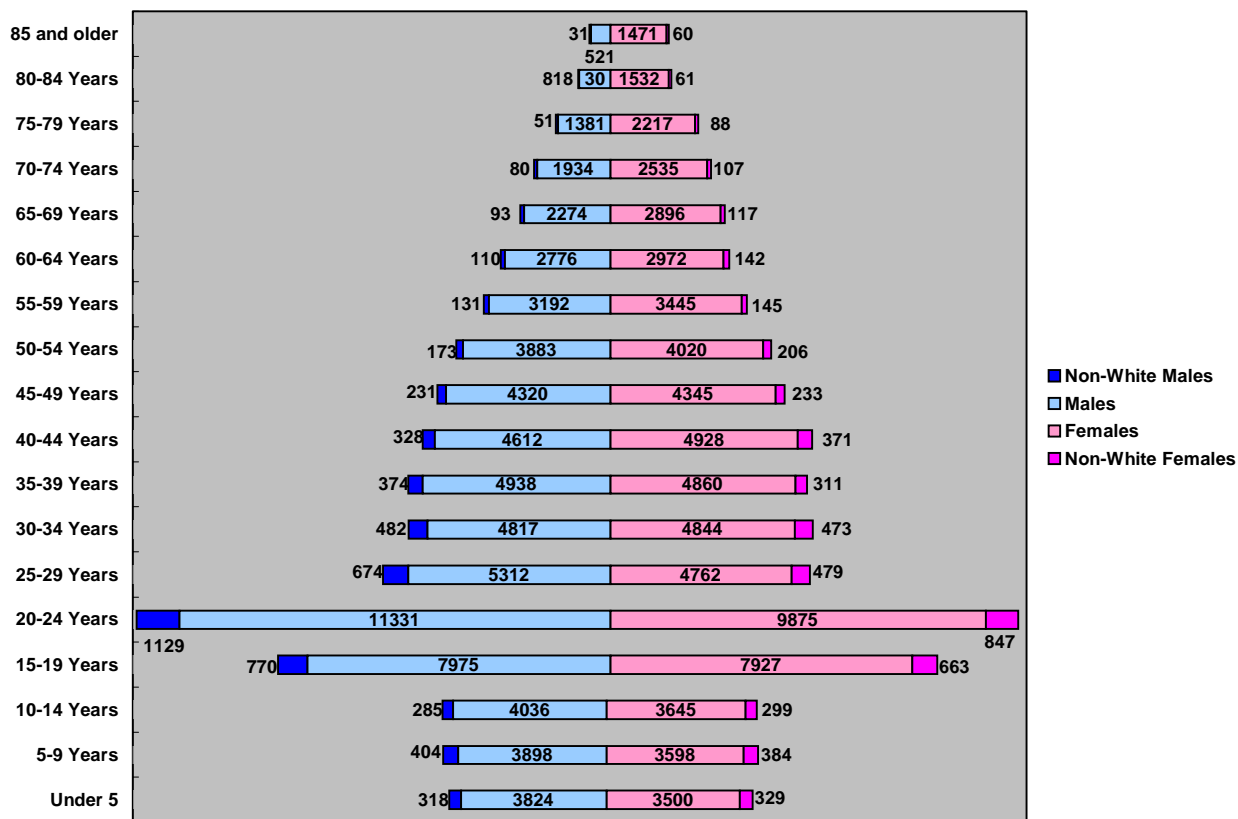
## Population Distribution by Locality *New River Health District* 1995



Source: *Virginia Health Statistics 1995*, Center for Health Statistics, Virginia Department of Health, January 1997.

Based on the 1995 population projections by the Virginia Employment Commission, New River's total population is 156,223. The following pyramid reveals New River's population composition. As can be seen from this pyramid, the population is composed of 78,687 females and 77,536 males; the population is predominantly White (93%); Black residents comprise 4.5% of the total population and other races comprise 2.5%; and 20 – 24 year olds comprise the largest population group, primarily due to the college populations.

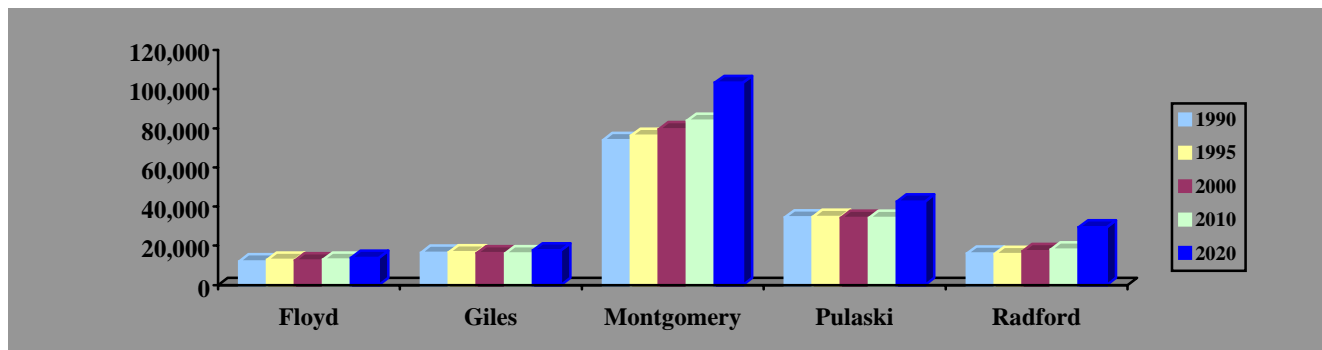
## Population Distribution by Age, Sex, and Race *New River Health District 1995*



Source: Virginia Employment Commission, 1995 Population Projections.

Current population counts and projections through the year 2020 for each jurisdiction of the New River Valley are provided in the following table. Interestingly, population projections for New River parallel the steady growth of the State and Nation to year 2020. The population of the New River Valley is projected to experience continued growth, although individual jurisdictions may experience declines before increasing by the year 2020. By the year 2020, it is projected that 197,550 people will reside in the New River Valley, an increase of 26% or 41,350 people.

***Population and Projections by Locality  
New River Health District  
1990 - 2020***

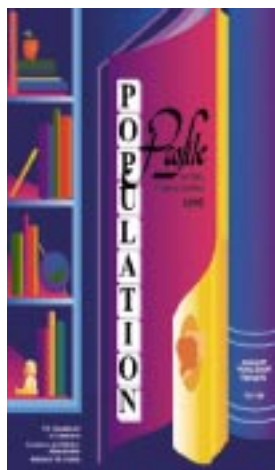


Sources: New River Valley Planning District Commission, August 1997.

*Virginia's Population--1995 Estimates*, Weldon Cooper Center for Public Service, University of Virginia, June 1996.

It is important to look at population composition because data for certain social problems and diseases are difficult to compare unless the rates are age-adjusted or the numbers are reported by certain age ranges in the population.

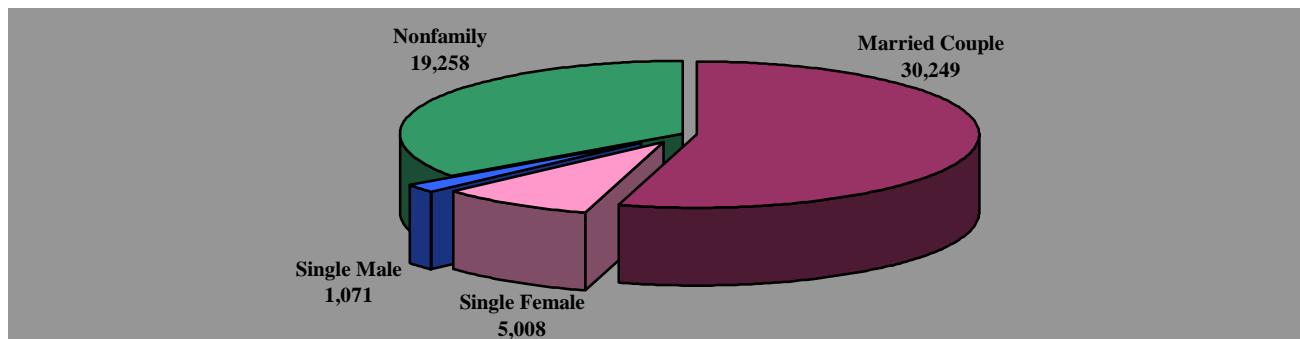
### ***Population Indicators***



Demographics provide a picture of households in the New River Valley. This data indicates if families are stable, economically sound, and if the members of the family are safe. Economic status and educational level are indications of an individual's ability to live a healthy life. Economic and demographic information can also determine if there are financial and social support systems in place. This is important for both community and individual health, especially for those who are isolated from their family support system.

Today, households vary from the traditional family of two parents and children. The term "household" refers to the people occupying a housing unit rather than the physical structure in which they live. Households exhibit diversity in their composition. The U.S. Census Bureau identifies two basic types of households: family and nonfamily. A family household is composed of at least two persons related by birth, marriage, or adoption. A nonfamily household is either a person living alone or a householder who is not related to any of the other persons sharing their home.

***Household Composition by Type  
New River Health District  
1997\****



\* Based on 1990 Census.

Source: New River Valley Planning District Commission, June 1992.

According to *1995 KIDS COUNT*, there is a clear relationship between family structure and completing high school. Children who grow up in single parent families are twice as likely as those from married-couple families to drop out of high school. The percentage of students graduating from high school is an important indicator of a community's success in educating its children and a predictor of adult success. A high school diploma is critical in obtaining post-secondary education or getting a job. Persons who drop out of school face enormous odds in their attempts to achieve financial success. Over their lifetime, high school dropouts earn only about 75% as much as high school graduates and less than half of what college graduates are likely to make during their lifetime. In any given year, the likelihood of slipping into poverty is about three times higher for high school dropouts than for those who have finished high school.

The latest educational data for the New River Valley is based on the 1990 census. The following charts reflect the distribution of school enrollments and the level of educational attainment for the individual localities of the New River Valley. It is disturbing to note that with the exception of Radford City (75.4%), every jurisdiction of the New River Valley falls below the State's percent (67.6%) of persons 25 years and older who are high school graduates. Also, the percent of persons 25 years and over who have earned a bachelor's degree or higher falls below the State's (24.5%) in three--Giles County (8.9%), Floyd County (10.4%), and Pulaski County (11.5%)--of the five localities of the New River Health District.

***School Enrollment  
Virginia, New River Health District and Localities  
1997\****

	<i>Virginia</i>	<i>New River Health District</i>	<i>Floyd</i>	<i>Giles</i>	<i>Montgomery</i>	<i>Pulaski</i>	<i>Radford</i>
<b>Persons 3 years and over enrolled in school</b>	<b>1,546,257</b>	<b>55,390</b>	<b>2,391</b>	<b>3,402</b>	<b>32,874</b>	<b>7,490</b>	<b>9,233</b>
Preprimary school	111,247	1,861	162	151	1,051	299	198
Elementary or high school	994,327	20,684	1,965	2,538	9,626	5,308	1,247
Number and (%) in private school	109,784 (7.1)	2,307 (4.2)	93 (3.9)	41 (1.2)	1,940 (5.9)	113 (1.5)	120 (1.3)
College	440,683	33,845	264	713	23,197	1,883	7,788

\* Based on 1990 Census.

Source: New River Valley Planning District Commission, June 1992.

***Educational Attainment  
Virginia, New River Health District and Localities  
1997\****

	<i>Virginia</i>	<i>New River Health District</i>	<i>Floyd</i>	<i>Giles</i>	<i>Montgomery</i>	<i>Pulaski</i>	<i>Radford</i>
Persons 25 years and over	3,974,814	86,968	8,240	11,199	37,940	23,270	6,319
Less than 9th grade	443,668	14,652	2,100	2,008	5,088	4,708	748
9th to 12th grade, no diploma	543,535	13,566	1,177	1,969	4,917	4,699	804
High school graduate	1,059,199	22,812	2,853	4,328	8,007	6,377	1,247
Some college, no degree	736,007	12,630	905	1,376	5,820	3,370	1,159
Associate degree	219,511	4,946	352	522	2,105	1,442	525
Bachelor's degree	612,679	9,731	571	588	5,850	1,760	962
Graduate or professional degree	360,215	8,631	282	408	6,153	914	874
Percent high school graduate or higher	75.2	67.6	60.2	64.5	73.6	59.6	75.4
Percent bachelor's degree or higher	24.5	21.1	10.4	8.9	31.6	11.5	29.1

\* Based on 1990 Census.

Source: New River Valley Planning District Commission, June 1992.

Excessive absenteeism, school performance, alcohol and drug abuse, teen pregnancy, and poverty are factors that contribute to dropping out of school. While student dislike of school, lack of strong educational or career goals, and parents who are unable or unwilling to provide support for educational efforts often lead to the gradual separation of the student from the educational system, it is important to recognize the impact that physical and emotional health have upon a student's absence and eventual dropping out.

Many children come to school every day with a myriad of health, social, and mental health problems that interfere with their academic achievement and overall well-being. Comprehensive school health programs play a key role in addressing the health needs of children. According to the American Academy of Pediatrics (AAP), there are seven goals for school health programs:

1. To ensure access to primary health care,
2. To provide a system for dealing with crisis medical situations,
3. To provide mandated screening and immunization monitoring,
4. To provide systems for identification and solution of students' health and educational problems,
5. To provide comprehensive and appropriate health education,
6. To provide a healthful and safe school environment that facilitates learning, and
7. To provide a system of evaluation of the effectiveness of the school health program.

Because of increased demands on schools, current staff are overextended and unable to provide adequate school health services, outreach, and education. School health nurses play an important role in implementing effective school health programs and fulfill a variety of roles--provider of care, communicator, planner and coordinator of care, teacher, investigator, and participant within the discipline of nursing.

School nurses are the first line of defense against the disruption of children's education due to serious illness. Many school-age children do not receive adequate health care due to lack of insurance and/or transportation. Some students do not receive appropriate follow-up care for identified medical deficiencies due to lack of understanding and/or information for accessing referral services. The obvious result becomes chronic illnesses that go unidentified and untreated.

On-site school nurses provide health assessments, identify potential health problems, and follow-up with parents and school personnel as appropriate. School nurses facilitate and support students'/families' health without interfering with established relationships of students/families with local health care providers. Instead, the case management of students/families facilitates and enhances these already existing relationships and promotes establishment of nonexistent ones.

The following chart reveals the status of school health nursing in the New River Health District according to the local school divisions.

*Current School Health Nurses and Projected Needs by School Division  
New River Health District and Localities  
School Year 1996 - 1997*

SCHOOL DIVISION		SCHOOL HEALTH NURSES						
		RN FTEs by Employer *		TOTAL RN FTEs	Additional RN FTEs Needed To Obtain Nurse/Student Ratio			
NAME	# Students	School	Health Department		RN/1000	RN/1500	RN/2000	RN/2500
Floyd	1,931	0	0.73 (27hrs./wk.)	0.73	1.20	0.56	0.24	0.04
Giles	2,565	1	0	1.0	1.57	0.71	0.28	0.03
Montgomery	9,118	1	0	1.0	8.12	5.08	3.56	2.65
Pulaski	5,160	1	1.87 (69hrs./wk.)	2.87	2.29	0.57	NA	NA
Radford	1,539	0	0.87 (32hrs./wk.)	0.87	0.67	0.16	NA	NA
New River Health District	20,313	3	3.47	6.47	13.85	7.08	4.08	2.72

\*A full time equivalent (FTE) is based on 37 hours per week.

NA: Not applicable.

Source: School Nursing Services, Virginia Department of Health, April 1997.

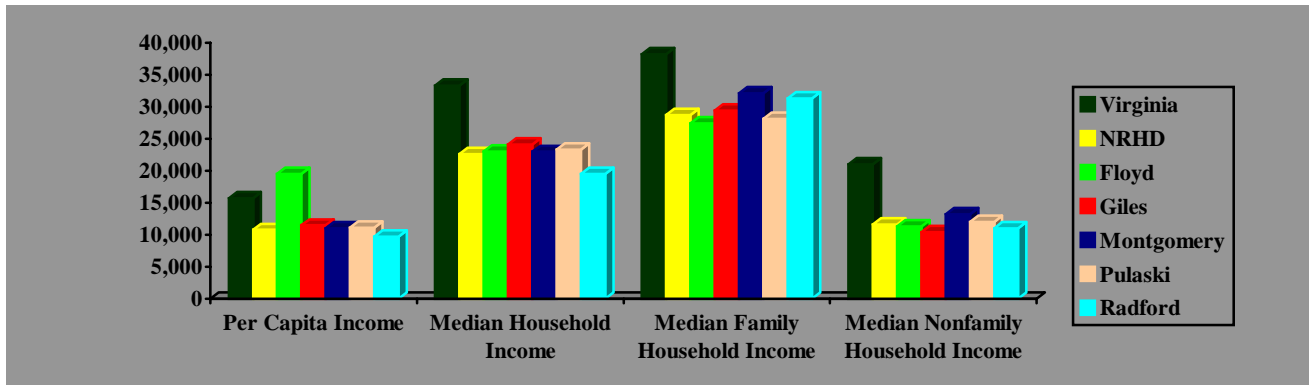
According to the Code of Virginia, Section 22.1-274, each school board may strive to employ or contract with local health departments for nursing services consistent with the nurse-to-student ratios of 1:2500 by July 1, 1996; 1:2000 by July 1, 1997; 1:1500 by July 1, 1998; and 1:1000 by July 1, 1999. School health in the New River Valley is primarily a locally crafted, locally funded phenomenon. Three school divisions--Giles, Montgomery, and Pulaski--employ one school nurse. Three of the school divisions--Floyd, Pulaski, and Radford--contract with the New River Health District for public health nurses to provide school health nursing services.

In order to meet the many unmet health needs of school children, requests to fund professional registered nurses to provide "on-site" school health nursing is essential to the well-being of the student population and to assure that the Year 1999 Goal, nurse-to-student ratio (1:1000), is achieved. With the passing of a new State law effective 1998 which will enable teachers to refuse to perform nonemergency procedures without the risk of probation or termination, school nurses become critical to the care of special needs children.

School health is the key for promoting good health, preventing health problems, and enhancing academic achievement. Advanced skills and technical knowledge will be required for the most meaningful jobs of the twenty-first century, and the prospects for those who have not completed high school will be dismal. The economic gap between those who graduate and those who drop out is likely to increase. The economic costs of dropping out of school are clear. The number of adults who have a high school diploma or less has fallen dramatically, while the income of college graduates has increased over the past two decades.

Adequate income is essential to the well-being, stability, and self-sufficiency of families. Further, adequate family income is necessary for the well-being and development of children. As seen on the following graph, the per capita income, median household income, and median nonfamily household income for the New River Health District is below both the State's and Nation's in each category. Based on the 1990 census, per capita income for the New River Valley (\$10,750) is below both the State (\$15,713) and the Nation (\$18,696)--ranging from the highest, \$11,462, in Giles County; to \$11,074 in Pulaski County; to \$10,979 in Montgomery County; to \$10,532 in Floyd County; and to the lowest, \$9,704, in Radford City. The median household income in the New River Valley is \$22,570--ranging from the highest, \$24,125, in Giles County; to \$23,319 in Pulaski County; to \$22,968 in Floyd County; to \$22,949 in Montgomery County; and to the lowest, \$19,487, in Radford City--as compared to the State's (\$33,328) and the Nation's (\$33,585) for 1990. The median family income ranged from the highest, \$32,128, in Montgomery County; to \$31,318 in Radford City; to \$29,415 in Giles County; to \$28,057 in Pulaski County; and to the lowest, \$27,439, in Floyd County--compared to the State's (\$38,213). The median nonfamily household income ranged from the highest, \$13,183, in Montgomery County; to \$11,977 in Pulaski County; to \$11,308 in Floyd County; to \$10,966 in Radford City; and to the lowest, \$10,391, in Giles County--as compared to Virginia's (\$21,030). Clearly, household income varies according to the household composition.

***Per Capita, Median Family, Median Household, and Median Nonfamily Household Income  
Virginia, New River Health District and Localities  
1997\****



\* Based on 1990 Census.

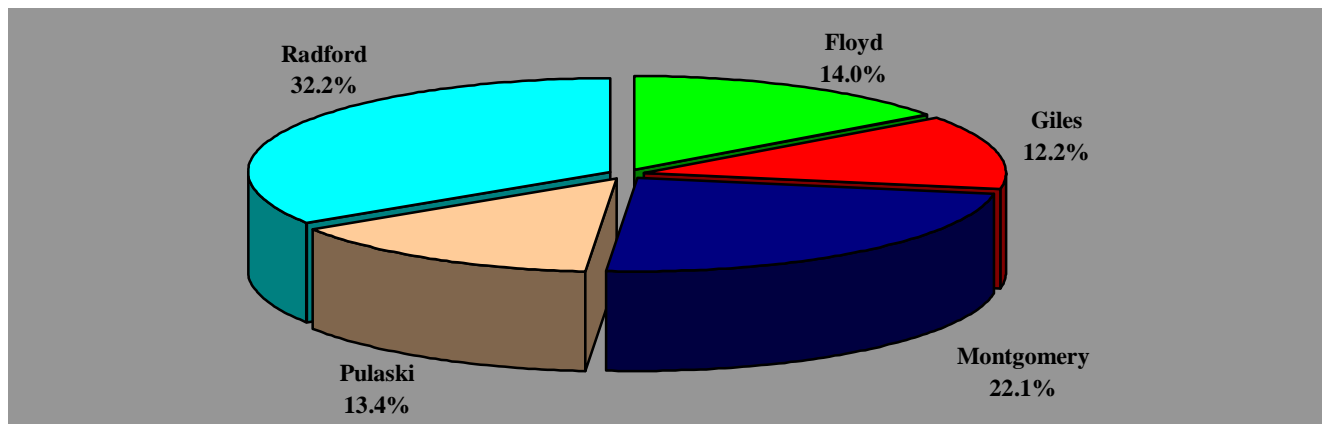
Source: New River Valley Planning District Commission, June 1992.

Poverty increases the likelihood of child abuse and neglect, domestic violence, alcohol and drug abuse, poor health care, poor educational attainment, inadequate housing, and homelessness. The level of poverty in the New River Valley can be measured by the number of residents living below the federally defined poverty level and/or the number of those receiving public assistance [Aid to Families with Dependent Children (AFDC), Food Stamps, and/or Medicaid].

In 1990, 36 million persons, representing 9.7% of the Nation's population, participated in a major assistance program--AFDC, Food Stamps, and/or Medicaid. During fiscal year 1996, 167,310 persons in Virginia received AFDC; 497,322 persons received Food Stamps; and 528,703 persons were Medicaid recipients. For the same time period, in the New River Valley, 12,094 persons received AFDC; 11,445 persons received Food Stamps; and 11,698 persons were Medicaid recipients. Changes in federal law have replaced AFDC with TANF (Temporary Assistance to Needy Families). Under TANF, states are responsible for restructuring their own welfare system. From the public health perspective, it will be interesting to see how these changes impact the communities' health.

The percent of New River Valley's population below 100% poverty in every jurisdiction--12.2% in Giles County, 13.4% in Pulaski County, 14.0% in Floyd County, 22.1% in Montgomery County, 32.2% in Radford City--exceeds both the State's (10.2%), and the Nation's (13.5%). Interestingly, the percent of the New River Valley's population below 200% poverty in every jurisdiction--32.5% in Giles County, 34.6% in Pulaski County, 35.2% in Floyd County, 35.8% in Montgomery County, 41.2% in Radford City--also exceeds the State's (26.2%). The following graphs reflect the percentages of population at 100% and 200% below poverty by locality in the New River Health District.

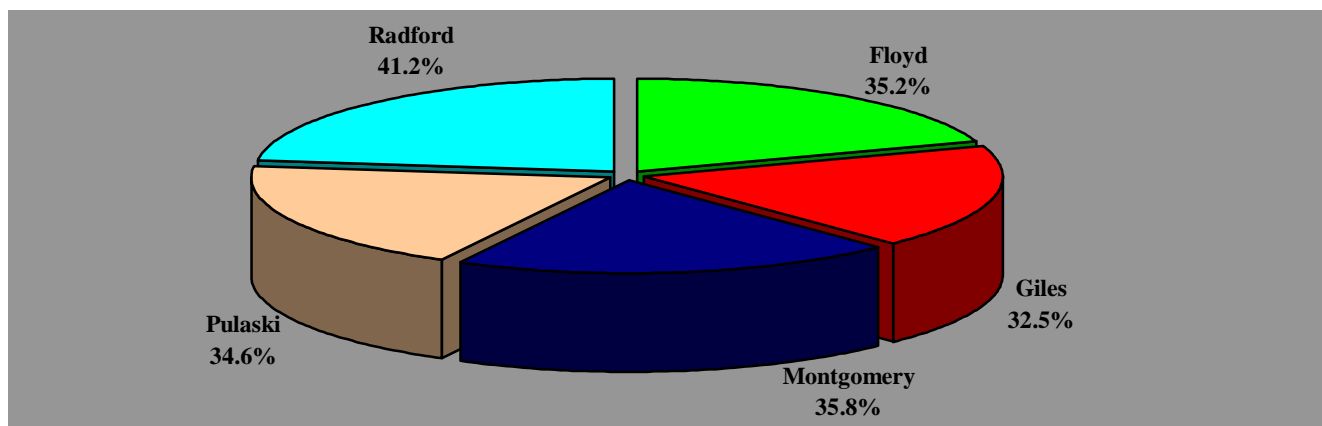
***Percent of Population Below 100% Poverty By Locality  
New River Health District  
1997\****



\* Based on 1990 Census.

Source: *Virginia Primary Care Data Profile*, Virginia Primary Care Association, Inc., January 1998.

***Percent of Population Below 200% Poverty By Locality  
New River Health District  
1997\****



\* Based on 1990 Census.

Source: *Virginia Primary Care Data Profile*, Virginia Primary Care Association, Inc., January 1998.

The unemployment rate is another indicator of the community's health and the opportunities available to families. High unemployment rates increase the risk for family stability, child abuse and neglect, parental depression, and conflict. This is especially significant to youth and young adults, because if they spend a large part of their young adult years unemployed, they may have a difficult time finding and keeping a job later in life. In 1996, New River's percentage of persons unemployed was above the State's (4.4%) in three--Floyd County (5.3%), Giles County (7.0%), and Pulaski County (9.4%)--of the five jurisdictions; Radford City (4.2%) and Montgomery County (3.6%) were just under the State's percentage.



The New River Valley, like Virginia and the United States, is suffering from a shortage of affordable childcare. This is particularly significant for families living at the poverty level who potentially could spend up to 25% of their income on childcare, compared to the national average of 6% for non-poverty income families. Lack of affordable day care affects parents' job opportunities and limits children's opportunities to be in an environment that is conducive to learning in their early childhood years, correlating with later school success. Readiness for school is promoted through quality day care where intellectual, physical, social, and emotional development of children is promoted. According to *KIDS COUNT IN VIRGINIA*, 1997 Data Book, the number of child care slots for children under the age of 13 varied in the New River Valley for 1997, from the lowest in Floyd (91), to Giles (287), Pulaski (623), Radford (673), and to the highest in Montgomery (2,421). Economic and social inequalities are further reinforced by the absence of day care and parental employment.

Financial and programmatic constraints in the 1990s have required government, private business, and the-not-for-profit sector to seek partnerships, coalitions, and shared resources wherever possible to achieve objectives, rather than rely on hierarchical, bureaucratic approaches that may have worked in a different political and budget environment. These public private partnerships focus on three areas:

- Providing information to the community derived from the assessment of health status, health needs, disease threats, and health services;
- Leading the community in planning and mobilization of governmental and nongovernmental resources for health; and
- Assuring the availability of quality individual, family, and public health services to the entire community, including a proactive emphasis on health protection and promotion.

The Partnership for Access to Health Care (PATH) was begun in July, 1995, and is a collaborative, community-focused alliance of health service organizations committed to enhancing communications, optimizing resources, and increasing access to health care for all citizens of the New River Valley. Meetings are held every six weeks on a rotating basis at New River Valley hospitals on Mondays from 12:30-2:30 p.m.

This partnership resulted from discussions and review of statistics from the *1994 New River Valley Health and Human Services Needs Assessment* which indicated that the number one concern of residents in Planning District Four (Floyd, Giles, Montgomery, and Pulaski counties and the city of Radford) was lack of affordable health care. Thirty-four percent (34%) of survey respondents cited a lack of affordable medical insurance as a major or moderate problem in their household. Thirty-one percent (31%) stated that having enough money to pay the doctor and purchase prescriptions was a major or moderate problem. Another critical concern was that stress, anxiety, and depression occurred in 31% of homes, according to the survey.

The broad objectives of PATH are:

- To heighten awareness about access to health care and the challenges facing low-income people as they seek to obtain quality, affordable health care;
- To promote organizational and individual efforts and strategies to increase access to health care in the New River Valley;

- To increase the capacity of the local health care system to provide free or discounted care to indigent patients/consumers;
- To encourage and support partnerships between health care programs and providers to deliver comprehensive, community-based health care services;
- To develop new sources of financial support to strengthen existing programs and services, and where necessary, to develop new programs and services;
- To recruit other interested organizations and individuals to participate in PATH.

Since its inception, PATH has been working to make a difference in access to health care through the following activities:

- *The Med-Ride* -- The *Med-Ride* is a collaborative transportation project developed in cooperation with New River Valley Senior Services, area transportation providers, and community volunteers. The scope of The *Med-Ride*'s service is broad and the program offers non-emergency transportation of uninsured, underinsured, and medically indigent patients to health care services including physician and dentist offices, hospital outpatient services, local pharmacies for prescriptions, health departments, and free clinics.

In early 1996, the Virginia Health Care Foundation awarded a three-year grant in support of this effort; the award for the first year was \$45,000. The award for the second year (1997) was \$30,000. Additional operating funds have been received from the four area hospitals and the United Way of Montgomery, Radford, and Floyd.

From January 1 – December 31, 1997, The *Med-Ride* received an average of 24.4 inquiries daily for assistance and transports. While transporting clients during this time period, the volunteer and partner-agency drivers logged 55,867 miles; 1,854 transports were made. Seventy percent (70%) or 38,999 of those miles were driven by The *Med-Ride*'s volunteer drivers. During this same period, The *Med-Ride* volunteers delivered 3,600 prescriptions to 1,700 clients.

- *Indigent Health Care Resource Directory* -- This resource directory of health and mental health services available in the New River Valley is being compiled in cooperation with a Virginia Tech health promotions class. It is projected that the directory will be available online and in hard copy for use by professionals and the public in January, 1998.
- *Pro Bono Mental Health Society* -- The organization of a Pro Bona Mental Health Society is in the planning stage. Its purpose will be to provide the uninsured with counseling services that are short-term and solution focused. The Mental Health Association of the New River Valley will serve as the coordinating agency for the Pro Bona Mental Health Society. It is projected that mental health professionals will begin seeing clients in January, 1998.

- *Legislative Breakfast/Summit* – An annual legislative breakfast/summit has been planned. The first breakfast/summit was held in October, 1997, at the Carilion Saint Albans Hospital Conference Center in Radford, Virginia. This informal session provided an opportunity for the PATH membership to share accomplishments, concerns, and perceptions of the health-care needs of the New River Valley with the legislators who represent the area. It was also an opportunity for the legislators to update partnership members on their perceptions of health-related issues and concerns, as well as particular legislative efforts/directives that are being implemented or may be addressed in the future.
- *Informational Forums* -- PATH members plan to convene a series of proactive informational forums that address current topics relative to access to health care, for example, the impact of changes in Medicaid/Medicare.

The Partnership for Access to Care (PATH) of the New River Valley is a great example of how a community health partnership--one of the creative ways in which the New River Health District, the local “governmental presence in health”--can work collaboratively with other health and human services organizations, local medical care providers and hospitals, businesses, local governments, and other community organizations to identify gaps in the continuum of responsibility for care and services for vulnerable population(s) and collectively identify ways to close them.